Abstract Of The Disclosure

A process for the preparation of eneantiomerically pure (S)- or (R)-4-halo-3-hyroxybutyrates of formula (I):

$$\mathbb{R}^1$$
 OH O \mathbb{R}^2 (S)-I or \mathbb{R}^1 OR \mathbb{R}^2 (R)-I,

wherein R^1 is CH_2X , CHX_2 or CX_3 and X independently represents CI and/or Br and wherein R^2 is C_{1-6} -alkyl, C_{3-8} -cycloalkyl, aryl or aralkyl, and each aryl or aralkyl is optionally further substituted with one or more C_{1-4} -alkyl groups and/or halogen atoms, by asymmetric hydrogenation of 4-halo-3-oxobutyric acid esters of formula (II):

$$\mathbb{R}^1$$
 \mathbb{O} \mathbb{O} \mathbb{I}

wherein R^1 , R^2 and X are as defined above in the presence of a catalyst of a ruthenium complex of a chiral ligand of formula (III):

$$\begin{array}{c} F \\ O \\ \hline \\ F \\ O \\ \hline \end{array}$$
 PPh₂ III.